

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CXXX.

NOTES ON CAMPULOCLINIUM, KOANOPHYLLON,
MIKANIA AND SYMPHYOPAPPUS.

R. M. King and H. Robinson
Smithsonian Institution, Washington, D.C. 20560.

Recent efforts in the study of the Eupatorieae have indicated four isolated cases needing nomenclatural changes. Three of the plants involved have additional features which seem worthy of mention and illustration.

Campuloclinium campuloclinioides (Baker) R.M.King & H. Robinson, comb. nov. Ageratum campuloclioides Baker, Mart., Fl. Bras. 6(2):196. 1876. Syn. Trichogonia barrosoana Barroso, Arquivo Jard. Bot. Rio de Janeiro 11:13. 1951; Campuloclinium barrosoana (Barroso) R.M. King & H. Robinson, Phytologia 24:404. 1972.

The species has been rejected from various treatments of Ageratum with the suggestion of placement in Trichogonia without proper combination (B.L.Robinson, 1913, Johnson, 1971). A recent recollection by Coleman (1970) was from near the type locality in Goyas, Brazil but collections from farther east in Minas Gerais have been recently described as a new species in the genus Trichogonia by Barroso (1951). Our own studies had already shown the later species to be a Campuloclinium (King & Robinson, 1972). Comparison of the two type specimens loaned through the kindness of the Museo at Rio de Janeiro and Kew show that the two species are identical. The above unfortunate combination is necessary.

Koanophyllon lobatifolia (Cabrera) R.M.King & H. Robinson, comb. nov. Eupatorium lobatifolium Cabrera in Cabrera & Vittet, Sellowia 15:192. 1963.

The species has unusually lobed leaves with eccentrically placed secondary veins. The sinuses of the leaves occasionally reach the midrib near the base of one of the secondary veins and in some cases a secondary vein runs directly to the end of a shallower sinus where it divides. The basal lobes often have two secondary veins running parallel with little apparent orientation to the margin of the lobe. The venation contrasts greatly to that shown in the illustration accompanying the original description (Cabrera & Vittet,

1963). The unusual leaves of the plant do not detract from the completely Koanophyllon type of corollas, anthers, and styles. The anther appendages are short and grooved in the middle as noted in typical Koanophyllon species. The only feature of the genus that is not evident is the paniculate inflorescence, but the present material has such a sparing inflorescence that the basic structure cannot be determined.

Mikania iltisii R.M.King & H.Robinson, nom. nov.

Mikania standleyi R.M.King & H.Robinson, *Phytologia* 28: 272. 1974. not M. standleyi B.L.Robinson, *Contr. Gray Herb. n.s.* 77: 59. 1926, also of Costa Rica. The species is here renamed for Dr. Hugh Iltis, a collector of the paratype specimen.

Symphiopappus catharinensis (Cabrera) R.M.King & H. Robinson, comb. nov. Eupatorium catharinense Cabrera in Cabrera & Vittet, *Sellowia* 15: 197. 1963.

The species shares almost all features of the genus as circumscribed by King & Robinson (1971b). The one character by which the species is distinct from all others, the ten flowers per head, represents a doubling of the five flowers per head that is otherwise characteristic of the entire Disynaphioid Complex (King & Robinson, 1971a).

References

- Barroso, G.M. 1951. Estudo das espécies Brasileiras de Trichogonia Gardn. *Arquivos do Jardim Botânico do Rio de Janeiro* 11: 7-18.
- Cabrera, A.L. & N. Vittet 1963. Compositae Catharinenses. II. Eupatorieae. *Sellowia* 15: 149-258.
- Coleman, J.R. 1970. Additional chromosome numbers in Brazilian Compositae. *Rhodora* 72: 94-99.
- Johnson, M.F. 1971. A monograph of the genus Ageratum L. (Compositae-Eupatorieae). *Ann. Missouri Bot. Gard.* 58: 6-88.
- King, R.M. & H.Robinson 1971a. Studies in the Eupatorieae (Asteraceae). LI. The Disynaphioid Complex. *Phytologia* 22: 109-110.

King R.M. & H. Robinson. 1971b. Studies in the Eupatorieae (Asteraceae). LIV. The genus, Symphyopappus. Phytologia 22:115-117.

_____ & _____ 1972. Studies in the Eupatorieae (Asteraceae). CX. Additions to the genus, Campuloclinium. Phytologia 24:404-406.

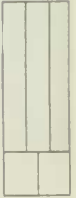
Robinson, B.L. 1913. A generic key to the Compositae-Eupatorieae. Contr. Gray Herb. n.s. 42:429-437.

Acknowledgement

This study was supported in part by the National Science Foundation Grant BMS 70-00537 A04 to the senior author.



Campuloclinium campuloclinioides (Baker) R.M.King & H.Robinson, Holotype of Ageratum campuloclinioides Baker, Kew. This and following photographs by Victor E. Krantz, Staff Photographer, National Museum of Natural History.



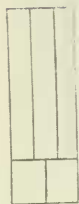
SANTA CATARINA BRASIL

DEPARTAMENTO DE AGRICULTURA
 901280
 1973-04-05
 FOTO

estrada Una Franciana, Joinville
 s/rio da mata 450
 rva
 branca

Witt & Klein 6.872 1.4.1959

Koanophyllon lobatifolium (Cabrera) R.M.King & H.Robinson, Holotype, Laplata.



Herbario Nacional, Rio de Janeiro, Brasil
 sp. nov. de Serra 14
 arborea 1
 crassa
 Heitz & Klein 1911

Symphiopappus catharinensis (Cabrera) R.M. King &
 H. Robinson, Holotype, Laplata.



Enlargements of Heads. Upper left; Campuloclinium campuloclinioides. Upper right; Koanophyllon lobatifolium. Bottom; Symphyopappus catharinensis.